

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
19 February 2004 (19.02.2004)

PCT

(10) International Publication Number  
**WO 2004/014351 A3**

(51) International Patent Classification<sup>7</sup>: **A61K 31/727**,  
38/23, A61P 17/06

MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,  
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:  
PCT/IS2003/000023

(22) International Filing Date: 12 August 2003 (12.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(30) Priority Data:  
6496 12 August 2002 (12.08.2002) IS

Declaration under Rule 4.17:  
— *of inventorship (Rule 4.17(iv)) for US only*

(71) Applicant and  
(72) Inventor: SVEINSSON, Birkir [IS/IS]; Midskogum 1,  
IS-225 Bessastadahreppur (IS).

Published:  
— *with international search report*  
— *before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments*

(74) Agent: A & P ARNASON; Efstaleiti 5, IS-103 Reykjavik  
(IS).

(88) Date of publication of the international search report:  
17 June 2004

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: USE OF CGRP ANTAGONIST COMPOUNDS FOR TREATMENT OF PSORIASIS

(57) Abstract: The invention provides methods and compositions for treating, preventing and/ or remedying psoriasis, based on compounds that have a calcitonin-related gene peptide (CGRP) antagonistic effect. Methods are also disclosed for identifying compounds with CGRP antagonist activity which thereby are suitable candidate compounds for treating psoriasis.

WO 2004/014351 A3

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IS 03/00023

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/727 A61K38/23 A61P17/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data, EMBASE, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NOVOTNY, FRANTISEK: "Psoriasis Treatment by heparin" ACTA UNIVERSITATIS CAROLINAE MEDICA, vol. 31, no. 3/4, 1985, pages 243-245, XP002274846 the whole document	1-11
Y	US 6 214 816 B1 (POLIVKA ZDEN EACUTE K ET AL) 10 April 2001 (2001-04-10) column 5, line 52 - line 67 column 6, line 1 - line 20 -/--	1-14

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## ° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

25 March 2004

Date of mailing of the international search report

13 APR 2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

C GÓMEZ LAGERLÖF /EÖ

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/IS 03/00023

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>YANLING, HE ET AL: "Calcitonin gene-related peptide in Langerhans cells in psoriatic plaque lesions"</p> <p>CHIN MED J, vol. 113, no. 8, 2000, pages 747-751, XP002274847 the whole document</p>	1-14
A	<p>CLAUDY, A.: "Les neuromédiateurs en dermatologie. Perspectives thérapeutiques"</p> <p>PATH BIOL, vol. 44, no. 10, 1996, pages 888-894, XP002274848 page 890 -page 891</p>	1-14

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IS 03/00023

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-5  
because they relate to subject matter not required to be searched by this Authority, namely:  
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☒ Claims Nos.: 4  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Claims Nos.: 1-5

Claims 1-5 relate to methods of treatment of the human or animal body by surgery or by therapy or diagnostic methods practised on the human or animal body (PCT Rule 39.1(iv)). Nevertheless, a search has been executed for these claims. The search has been based on the alleged effects of the compounds or compositions.

-----

Continuation of Box I.2

Claims Nos.: 4

Present claim 6 relates to compounds defined by reference to a desirable characteristic or property, namely CGRP antagonists. The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT for only a very limited number of compounds. Additionally, previously known compounds may be included in the scope of the present claims. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the compounds defined in claim 7.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IS 03/00023

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6214816	B1	10-04-2001	
		AU 2825999 A	11-10-1999
		WO 9947517 A1	23-09-1999
		EP 1071679 A1	31-01-2001
		JP 2002506863 T	05-03-2002
-----			